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denotes the smallest unit of information in the binary system of notation. "Carrier or Common Carrier" See Interexchange Carrier.

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is informal and usually suggests a small quantity. "A bit (of)" is usually used before adjectives adverbs that expressed negative idea. The other example of informal language can be seen bellow

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means binary digit, the smallest unit of measurement used to quantify computer data;

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means California Biennial Inspection of Terminals Program.

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means an electromagnetic radiation emitting and amplifying multiphase optical gain material for providing a laser-like emission being characteristic for this particular material in accordance with...

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Bit

The **bit** is the most basic unit of information in computing and digital communications. The name is a portmanteau of **binary digit**.^[1] The bit represents a logical state with one of two possible values. These values are most commonly represented as either "1" or "0", but other representations such as *true/false*, *yes/no*, *on/off*, or *+/-* are also widely used.

The relation between these values and the physical states of the underlying storage or device is a matter of convention, and different assignments may be used even within the same device or program. It may be physically implemented with a two-state device.

A contiguous group of binary digits is commonly called a *bit string*, a bit vector, or a single-dimensional (or multi-dimensional) *bit array*. A group of eight bits is called one *byte*, but historically the size of the byte is not strictly defined.^[2] Frequently, half, full, double and quadruple words consist of a number of bytes which is a low power of two. A string of four bits is usually a *nibble*.

In information theory, one bit is the information entropy of a random binary variable that is 0 or 1 with equal probability,^[3] or the information that is gained when the value of such a variable becomes known.^{[4][5]} As a unit of information, the bit is also known as a *shannon*,^[6] named after Claude E. Shannon.

The symbol for the binary digit is either "bit", per the IEC 80000-13:2008 standard, or the lowercase character "b", per the IEEE 1541-2002 standard. Use of the latter may create confusion with the capital "B" which is the international standard symbol for the byte.

History

The encoding of data by discrete bits was used in the punched cards invented by Basile Bouchon and Jean-Baptiste Falcon (1732), developed by Joseph Marie Jacquard (1804), and later adopted by Semyon Korsakov, Charles Babbage, Herman Hollerith, and early computer manufacturers like IBM. A variant of that idea was the perforated paper tape. In all those systems, the medium (card or tape) conceptually carried an array of hole positions; each position could be either punched through or not, thus carrying one bit of information. The encoding of text by bits was also used in Morse code (1844) and early digital communications machines such as teletypes and stock ticker machines (1870).

Ralph Hartley suggested the use of a logarithmic measure of information in 1928.^[7] Claude E. Shannon first used the word "bit" in his seminal 1948 paper "A Mathematical Theory of Communication".^{[8][9][10]} He attributed its origin to John W. Tukey, who had written a Bell Labs memo on 9 January 1947 in which he contracted "binary information digit" to simply "bit".^[8]

Physical representation

A bit can be stored by a digital device or other physical system that exists in either of two possible distinct states. These may be the two stable states of a flip-flop, two positions of an electrical switch, two distinct voltage or current levels allowed by a circuit, two distinct levels of light intensity, two directions of magnetization or polarization, the orientation of reversible double stranded DNA, etc.

Bits can be implemented in several forms. In most modern computing devices, a bit is usually represented by an electrical voltage or current pulse, or by the electrical state of a flip-flop circuit.

For devices using positive logic, a digit value of 1 (or a logical value of true) is represented by a more positive voltage relative to the representation of 0. Different logic families require different voltages, and variations are allowed to account for component aging and noise immunity. For example, in transistor–transistor logic (TTL) and compatible circuits, digit values 0 and 1 at the output of a device are represented by no higher than 0.4 volts and no lower than 2.6 volts, respectively; while TTL inputs are specified to recognize 0.8 volts or below as 0 and 2.2 volts or above as 1.

Transmission and processing

Bits are transmitted one at a time in serial transmission, and by a multiple number of bits in parallel transmission. A bitwise operation optionally processes bits one at a time. Data transfer rates are usually measured in decimal SI multiples of the unit bit per second (bit/s), such as kbit/s.

Storage

In the earliest non-electronic information processing devices, such as Jacquard's loom or Babbage's Analytical Engine, a bit was often stored as the position of a mechanical lever or gear, or the presence or absence of a hole at a specific point of a paper card or tape. The first electrical devices for discrete logic (such as elevator and traffic light control circuits, telephone switches, and Konrad Zuse's computer) represented bits as the states of electrical relays which could be either "open" or "closed". When relays were replaced by vacuum tubes, starting in the 1940s, computer builders experimented with a variety of storage methods, such as pressure pulses traveling down a mercury delay line, charges stored on the inside surface of a cathode-ray tube, or opaque spots printed on glass discs by photolithographic techniques.

In the 1950s and 1960s, these methods were largely supplanted by magnetic storage devices such as magnetic-core memory, magnetic tapes, drums, and disks, where a bit was represented by the polarity of magnetization of a certain area of a ferromagnetic film, or by a change in polarity from one direction to the other. The same principle was later used in the magnetic bubble memory developed in the 1980s, and is still found in various magnetic strip items such as metro tickets and some credit cards.

In modern semiconductor memory, such as dynamic random-access memory, the two values of a bit may be represented by two levels of electric charge stored in a capacitor. In certain types of programmable logic arrays and read-only memory, a bit may be represented by the presence or

absence of a conducting path at a certain point of a circuit. In optical discs, a bit is encoded as the presence or absence of a microscopic pit on a reflective surface. In one-dimensional bar codes, bits are encoded as the thickness of alternating black and white lines.

Unit and symbol

The bit is not defined in the International System of Units (SI). However, the International Electrotechnical Commission issued standard IEC 60027, which specifies that the symbol for binary digit should be 'bit', and this should be used in all multiples, such as 'kbit', for kilobit.^[11] However, the lower-case letter 'b' is widely used as well and was recommended by the IEEE 1541 Standard (2002). In contrast, the upper case letter 'B' is the standard and customary symbol for byte.

Multiple bits

Multiple bits may be expressed and represented in several ways. For convenience of representing commonly reoccurring groups of bits in information technology, several units of information have traditionally been used. The most common is the unit byte, coined by Werner Buchholz in June 1956, which historically was used to represent the group of bits used to encode a single character of text (until UTF-8 multibyte encoding took over) in a computer^{[2][12][13][14][15]} and for this reason it was used as the basic addressable element in many computer architectures. The trend in hardware design converged on the most common implementation of using eight bits per byte, as it is widely used today. However, because of the ambiguity of relying on the underlying hardware design, the unit octet was defined to explicitly denote a sequence of eight bits.

Computers usually manipulate bits in groups of a fixed size, conventionally named "words". Like the byte, the number of bits in a word also varies with the hardware design, and is typically between 8 and 80 bits, or even more in some specialized computers. In the 21st century, retail personal or server computers have a word size of 32 or 64 bits.

The International System of Units defines a series of decimal prefixes for multiples of standardized units which are commonly also used with the bit and the byte. The prefixes kilo (10^3) through yotta (10^{24}) increment by multiples of one thousand, and the corresponding units are the kilobit (kbit) through the yottabit (Ybit).

Information capacity and information compression

Multiple-bit units					
Decimal			Binary		
Value	Metric		Value	IEC	Memory
1000	kbit	<u>kilobit</u>	1024	Kibit kibibit	Kbit Kb kilobit
1000 ²	Mbit	<u>megabit</u>	1024 ²	Mibit mebibit	Mbit Mb megabit
1000 ³	Gbit	<u>gigabit</u>	1024 ³	Gibit gibibit	Gbit Gb gigabit
1000 ⁴	Tbit	<u>terabit</u>	1024 ⁴	Tibit tebibit	—
1000 ⁵	Pbit	<u>petabit</u>	1024 ⁵	Pibit pebibit	—
1000 ⁶	Ebit	<u>exabit</u>	1024 ⁶	Eibit exbibit	—
1000 ⁷	Zbit	<u>zettabit</u>	1024 ⁷	Zibit zebibit	—
1000 ⁸	Ybit	<u>yottabit</u>	1024 ⁸	Yibit yobibit	—
1000 ⁹	Rbit	<u>ronnabit</u>		—	
1000 ¹⁰	Qbit	<u>quettabit</u>		—	

Orders of magnitude of data

When the information capacity of a storage system or a communication channel is presented in *bits* or *bits per second*, this often refers to binary digits, which is a computer hardware capacity to store binary data (0 or 1, up or down, current or not, etc.).^[16] Information capacity of a storage system is only an upper bound to the quantity of information stored therein. If the two possible values of one bit of storage are not equally likely, that bit of storage contains less than one bit of information. If the value is completely predictable, then the reading of that value provides no information at all (zero entropic bits, because no resolution of uncertainty occurs and therefore no information is available). If a computer file that uses n bits of storage contains only $m < n$ bits of information, then that information can in principle be encoded in about m bits, at least on the average. This principle is the basis of data compression technology. Using an analogy, the hardware binary digits refer to the amount of storage space available (like the number of buckets available to store things), and the information content the filling, which comes in different levels of granularity (fine or coarse, that is, compressed or uncompressed information). When the granularity is finer—when information is more compressed—the same bucket can hold more.

For example, it is estimated that the combined technological capacity of the world to store information provides 1,300 exabytes of hardware digits. However, when this storage space is filled and the corresponding content is optimally compressed, this only represents 295 exabytes of information.^[17] When optimally compressed, the resulting carrying capacity approaches Shannon information or information entropy.^[16]

Bit-based computing

Certain bitwise computer processor instructions (such as *bit set*) operate at the level of manipulating bits rather than manipulating data interpreted as an aggregate of bits.

In the 1980s, when bitmapped computer displays became popular, some computers provided specialized bit block transfer instructions to set or copy the bits that corresponded to a given rectangular area on the screen.

In most computers and programming languages, when a bit within a group of bits, such as a byte or word, is referred to, it is usually specified by a number from 0 upwards corresponding to its position within the byte or word. However, 0 can refer to either the most or least significant bit depending on the context.

Other information units

Similar to torque and energy in physics; information-theoretic information and data storage size have the same dimensionality of units of measurement, but there is in general no meaning to adding, subtracting or otherwise combining the units mathematically, although one may act as a bound on the other.

Units of information used in information theory include the shannon (Sh), the natural unit of information (nat) and the hartley (Hart). One shannon is the maximum amount of information needed to specify the state of one bit of storage. These are related by $1 \text{ Sh} \approx 0.693 \text{ nat} \approx 0.301 \text{ Hart}$.

Some authors also define a **bit** as an arbitrary information unit equivalent to some fixed but unspecified number of bits.^[18]

See also

- Byte
- Integer (computer science)
- Primitive data type
- Trit (Trinary digit)
- Qubit (quantum bit)
- Bitstream
- Entropy (information theory)
- Bit rate and baud rate
- Binary numeral system
- Ternary numeral system
- Shannon (unit)
- Nibble

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Byte denotes a group of bits used to encode a character, or the number of bits transmitted in parallel to and from input-output units. A term other than character is used here because a given character may be represented in different applications by more than one code, and different codes may use different numbers of bits (ie, different byte sizes). In input-output transmission the grouping of bits may be completely arbitrary and have no relation to actual characters. (The term is coined from bite, but respelled to avoid accidental mutation to bit.)
System/360 took over many of the *Stretch* concepts, including the basic byte and word sizes, which are powers of 2. For economy, however, the byte size was fixed at the 8 bit maximum, and addressing at the bit level was replaced by byte addressing. [...]"
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External links

- Bit Calculator (<https://web.archive.org/web/20090216151053/http://www.bit-calculator.com/>) – a tool providing conversions between bit, byte, kilobit, kilobyte, megabit, megabyte, gigabit, gigabyte
 - BitXByteConverter (<http://nxu.biz/tools/BitXByteConverter/>) – a tool for computing file sizes, storage capacity, and digital information in various units
-

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▪

Bits and Bytes

At the smallest scale in the computer, information is stored as bits and bytes. In this section, we'll learn how bits and bytes encode information.

Bit

- a "bit" is atomic: the smallest unit of storage
- A bit stores just a 0 or 1
- "In the computer it's all 0's and 1's" ... bits
- Anything with two separate states can store 1 bit
- In a chip: electric charge = 0/1
- In a hard drive: spots of North/South magnetism = 0/1
- A bit is too small to be much use
- Group 8 bits together to make 1 byte

Everything in a computer is 0's and 1's. The **bit** stores just a 0 or 1: it's the smallest building block of storage.

Byte

- One byte = collection of 8 bits
- e.g. 0 1 0 1 1 0 1 0
- One byte can store one character, e.g. 'A' or 'x' or '\$'

How Many Patterns With N Bits? (demo)

How many different patterns can be made with 1, 2, or 3 bits?

Number of bits	Different Patterns
1	0 1
2	00 01 10 11
3	000 001 010 011 100 101 110 111

- 3 bits vs. 2 bits
- Consider just the leftmost bit
- It can only be 0 or 1
- Leftmost bit is 0, then append 2-bit patterns
- Leftmost bit is 1, then append 2-bit patterns again
- 3-bits has twice as many patterns as 2-bits

Number of bits	Different Patterns
1	0 1
2	00 01 10 11
3	000 001 010 011 100 101 110 111

- In general: add 1 bit, double the number of patterns
- 1 bit - 2 patterns
- 2 bits - 4
- 3 bits - 8
- 4 bits - 16
- 5 bits - 32
- 6 bits - 64
- 7 bits - 128
- 8 bits - 256 - one byte
- Mathematically: n bits yields 2^n patterns (2 to the n th power)

One Byte - 256 Patterns (demo)

- 1 byte is group of 8 bits
- 8 bits can make 256 different patterns
- How to use the 256 patterns?
- How to store a number in a byte?
- Start with 0, go up, one pattern per number, until run out of patterns
- 0, 1, 2, 3, 4, 5, ... 254, 255

- One byte can hold a number between 0 and 255
- i.e. with 256 different patterns, we can store a number in the range 0..255
- Really good for storing characters/letters.

Bytes

- "Byte" - unit of information storage
- A document, an image, a movie .. how many bytes?
- 1 byte is enough to hold about 1 typed character, e.g. 'b' or 'X' or '\$'
- All storage is measured in bytes, despite being very different hardware
- **Kilobyte**, KB, about 1 thousand bytes
- **Megabyte**, MB, about 1 million bytes
- **Gigabyte**, GB, about 1 billion bytes
- **Terabyte**, TB, about 1 trillion bytes (rare)

Bytes and Characters - ASCII Code

- ASCII is an encoding representing each typed character by a number
- Each number is stored in one byte (so the number is in 0..255)
- A is 65
- B is 66
- a is 96
- space is 32
- "Unicode" is an encoding for mandarin, greek, arabic, etc. languages, typically 2-bytes per "character"

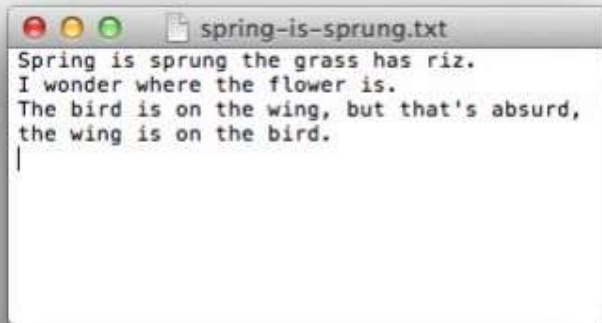
32 space
 33 !
 34 "
 35 #
 36 \$
 37 %
 38 &
 39 '
 40 (
 41)
 42 *
 43 +
 44 ,
 45 -
 46 .
 47 /
 48 0
 49 1
 50 2
 51 3
 52 4
 53 5
 54 6
 55 7
 56 8
 57 9
 58 :
 59 ;
 60 <
 61 =
 62 >
 63 ?
 64 @

65 A
 66 B
 67 C
 68 D
 69 E
 70 F
 71 G
 72 H
 73 I
 74 J
 75 K
 76 L
 77 M
 78 N
 79 O
 80 P
 81 Q
 82 R
 83 S
 84 T
 85 U
 86 V
 87 W
 88 X
 89 Y
 90 Z
 91 [
 92 \
 93]
 94 ^
 95 _
 96 `

97 a
 98 b
 99 c
 100 d
 101 e
 102 f
 103 g
 104 h
 105 i
 106 j
 107 k
 108 l
 109 m
 110 n
 111 o
 112 p
 113 q
 114 r
 115 s
 116 t
 117 u
 118 v
 119 w
 120 x
 121 y
 122 z
 123 {
 124 |
 125 }
 126 ~

Typing, Bytes, and You

- Each letter is stored in a byte, as below
- 100 typed letters takes up 100 bytes
- When you send, say, a text message, the numbers are sent
- Text is quite compact, using few bytes, compared to images etc.



Underlying bytes in RAM

s	p	r	i	...
83	112	114	105	

Numbers in Computers

- One byte works well for individual characters, but computers are also good at manipulating numbers.
- **Integers** are typically stored with either 4 or 8 bytes
 4 bytes can store numbers between -2147483648 and 2147483647
 8 bytes can store numbers between -9223372036854775808 and 9223372036854775807
- Adding in binary is just like normal addition with carrying
 But when you run out of bits you can't carry anymore
 Leftmost bit indicates sign, so carrying to the leftmost bit changes a number from positive to negative.
 So adding 1 to 2147483647 goes to -2147483648!
 Called **Integer Overflow**
 Integer Overflow and Gangnam Style
 (https://arstechnica.com/business/2014/12/gangnam-style-overflows-int_max-forces-youtube-to-go-64-bit/)

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Computer Code definition

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Computer Code means hardware, firmware, and software, regardless of form (e.g., embedded logic, object code (/dictionary/object-code) or source code (/dictionary/source-code)) or language, where such hardware, firmware, and software performs logic or other operations (/clause/other-operations) or includes instructions, such that when executed, the instructions cause a computer or other data processing system (/dictionary/data-processing-system) to carry out logic or other operations.

Sample 1 (/contracts/3LiN5iTxFfX#computer-code)

Sample 2 (/contracts/gLdAZelvzqz#computer-code)

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Computer Code means computer programming code (/dictionary/programming-code) and software programs (/clause/software-programs) (including both object and source code (/dictionary/source-code)) executable or not executable, including any Reusable Code.

Sample 1 (http://www.rfpdb.com/process/download/name/MicroSoft-SCCM-2007-Implementer.pdf)

1

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Computer Code means computer programming code (/dictionary/programming-code) and software programs (/clause/software-programs) (including both object and source code (/dictionary/source-code)) executable or not executable, including any reusable code, libraries, routines, sub- routines, and utilities.

Sample 1 (<http://www.rfpdb.com/process/download/name/MicroSoft-SCCM-2007-Implementer.pdf>)

1

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Examples of *Computer Code* in a sentence

As Per Government Circular -2016 CR-320/Road-1 Mantralaya Mumbai Dt.01.07.2016 SelfCertification and Bituman Invoice should be submitted with each & work runnig Accountbill .(Please see the Cicular on www.maharashtra.gov.in **Computer Code** 201607011233411318)1.15 Instructions given by the Govt.

A Comparison of Three Methods for Selecting Values of Input Variables in the Analysis of Output from a **Computer Code**.

Modular Accident Analysis Program for LWR Power Plants, **Computer Code** Manual, May 1994.

Fracture Analysis of Vessels – Oak Ridge, FAVOR, v04.1, **Computer Code**: User's Guide.

FRAPCON-3: A **Computer Code** for the Calculation of Steady-State, Thermal-Mechanical Behavior of Oxide Fuel Rods for High Burnup.

Violation constitutes violation of the LWSD **Computer Code** of Conduct as well as FERPA (Federal Education Rights Privacy Act).On occasion electronics may be used with teacher permission only to support the curriculum.Technology devices cannot be sold or traded during the school day, on the bus or at any school sponsored event ELECTRONICS VIOLATIONSCHOOL WIDE CONSEQUENCE Student laptop misuse may result in classroom consequences or immediate referral to administration.

See MELCOR **Computer Code** Application Guidance for Leak Path Factor in Documented Safety Analysis, May 2004.

McKay, M.D.; Beckman, R.J.; Conover, W.J. A Comparison of Three Methods for Selecting Values of Input Variables in the Analysis of Output from a **Computer Code**.

Cain, A **Computer Code** to Perform Analyses of Criticality Validation Results, Y/DD-574, Martin Marietta Energy Systems, Inc., Oak Ridge Y-12 Plant, September 1995.

Jae Man Noh, Kang Seog Kim, Yong Hee Kim, Hyun Chul Lee, "Development of a **Computer Code** System for the Analysis of Prism and Pebble Type VHTR cores," Ann.

More Definitions of *Computer Code*

Computer Code means computer programming code (/dictionary/programming-code). Except as otherwise ---
----- specified, Computer Code shall include both Object Code (/dictionary/object-code) and Source Code (/dictionary/source-code).

Sample 1 (/contracts/5uZgBhG8KML#computer-code) 1

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Computer Code means computer programming code (/dictionary/programming-code) and software programs (/clause/software-programs) (including both object and source code (/dictionary/source-code)) executable or not executable, including any Reusable Code;

Sample 1 (/contracts/amQLSSwF4Z#computer-code) 1

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Related to *Computer Code*

computer data (/dictionary/computer-data) means any representation of facts, information or concepts in a form suitable for processing in a computer system, including a program suitable to cause a computer system to perform a function;

Computer software (/dictionary/computer-software) means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer databases or computer software documentation.

Computer database (/dictionary/computer-database) or “database” means a collection of recorded information in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

Computer Hardware (/dictionary/computer-hardware) means all computer and other electronic data processing hardware of a Loan Party, whether now or hereafter owned, licensed or leased by such Loan Party, including, without limitation, all integrated computer systems, central processing units, memory units, display terminals, printers, features, computer elements, card readers, tape drives, hard and soft disk drives, cables, electrical supply hardware, generators, power equalizers, accessories, peripheral devices and other related computer hardware, all documentation, flowcharts, logic diagrams, manuals, specifications, training materials, charts and pseudo codes associated with any of the foregoing and all options, warranties, services contracts, program services, test rights, maintenance rights, support rights, renewal rights and indemnifications relating to any of the foregoing.

Computer network (/dictionary/computer-network) means the interconnection of hardwire or wireless communication lines with a computer through remote terminals, or a complex consisting of 2 or more interconnected computers.

Computer Virus (/dictionary/computer-virus) means any computer instruction, information, data or programme that destroys, damages, degrades or adversely affects the performance of a computer resource or attaches itself to another computer resource and operates when a programme, data or instruction is executed or some other event takes place in that computer resource;

Computer Tape (/dictionary/computer-tape) means the computer tapes or other electronic media furnished by the Servicer to the Issuer and its assigns describing certain characteristics of the Receivables as of the Cutoff Date.

Restricted computer software (/dictionary/restricted-computer-software) means computer software developed at private expense and that is a trade secret, is commercial or financial and confidential or privileged, or is copyrighted computer software, including minor modifications of the computer software.

Computer Systems (/dictionary/computer-systems) means computers and associated input and output devices, data storage devices, networking equipment, and back up facilities:

Computer System (/dictionary/computer-system) means a computer and all input, output, processing, storage, off-line media libraries, and communication facilities which are connected to the computer and which are under the control and supervision of the operating system(s) or application(s) software used by the ASSURED.

Computer data base (/dictionary/computer-data-base) means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

Computer Records (/dictionary/computer-records) means the computer records generated by the Servicer that provide information relating to the Loans and that were used by the Originator in selecting the Loans conveyed to the Trust Depositor pursuant to Section 2.01 (and any Substitute Loans conveyed to the Trust Depositor pursuant to Section 2.04).

Computer Fraud (/dictionary/computer-fraud) means the unauthorized entry of data into, or the deletion or destruction of data in, or change of data elements or programs within, a Covered Computer System which:

Desktop computer (/dictionary/desktop-computer) means a computer where the main unit is intended to be located in a permanent location, often on a desk or on the floor. Desktops are not designed for portability and utilize an external computer display, keyboard, and mouse. Desktops are designed for a broad range of home and office applications.

Computer Equipment (/dictionary/computer-equipment) means Covered Property that is electronic computer or other data processing equipment, including peripherals used in conjunction with such equipment, and electronic media and records.

Computer services (/dictionary/computer-services) means providing services consisting of specifying computer hardware configurations and evaluating technical processing characteristics, computer programming, and training of computer programmers and operators, provided in conjunction with and to support the sale, lease, or operation of taxable computer equipment or systems.

Computer Programs (/dictionary/computer-programs) means a set of related electronic instructions which direct the operations and functions of a computer or device connected to it, which enable the computer or device to receive, process, store, retrieve or send data.

Computer Hardware and Software (/dictionary/computer-hardware-and-software) means all of each Loan Party's and each of its Subsidiary's rights (including rights as licensee and lessee) with respect to (a) computer and other electronic data processing hardware, including all integrated computer systems, central processing units, memory units, display terminals, printers, computer elements, card readers, tape drives, hard and soft disk drives, cables, electrical supply hardware, generators, power equalizers, accessories, peripheral devices and other related computer hardware; (b) all software and all software programs designed for use on the computers and electronic data processing hardware described in clause (a) above, including all operating system software, utilities and application programs in whatsoever form (source code and object code in magnetic tape, disk or hard copy format or any other listings whatsoever); (c) any firmware associated with any of the foregoing; and (d) any documentation for hardware, software and firmware described in clauses (a), (b) and (c) above, including flow charts, logic diagrams, manuals, specifications, training materials, charts and pseudo codes.

Computer software documentation (/dictionary/computer-software-documentation) means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

Computer (/dictionary/computer) means an electronic device that accepts information in digital or similar form and manipulates it for a result based on a sequence of instructions.

Toll Center Code (/dictionary/toll-center-code) means the three digit access tandem code ("ATC") that uniquely identifies a tandem switch in the Local Exchange Routing Guide (LERG) designated as providing access to operator services functions.

Business Software (/dictionary/business-software) means with respect to a Licensor, all Software to the extent Controlled by such Licensor or any of its Affiliates as of the Effective Date, which Software is reasonably required as of the Effective Date for the conduct of (i) the Agriculture Business if the Licensee is AgCo, including as listed on section (i) of Schedule Q, or (ii) the Materials Science Business if the Licensee is MatCo, including as listed on section (ii) of Schedule Q, in each case (in respect of the foregoing (i) and (ii)), only if and to the extent such Licensee and its Affiliates have not been granted a license or other rights to use such Software under the Separation Agreement or any other Ancillary Agreement. Notwithstanding the foregoing, Business Software expressly excludes any and all Excluded IP.

Noncommercial computer software (/dictionary/noncommercial-computer-software) means software that does not qualify as commercial computer software under paragraph (a)(1) of this clause.

Computer program (/dictionary/computer-program) means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations.

Commercial computer software (/dictionary/commercial-computer-software) means software developed or regularly used for non-governmental purposes which—

Notebook computer (/dictionary/notebook-computer) , which means an electronic,

Most Referenced Clauses

Confidentiality (/clause/confidentiality)
 Force Majeure (/clause/force-majeure)
 Indemnity (/clause/indemnity)
 Intellectual Property Ownership
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 Non Solicitation (/clause/non-solicitation)
 Termination (/clause/termination)

Most Referenced Definitions

Adjusted Tangible Net Worth (/dictionary/adjusted-tangible-net-worth)
 Applicable Law (/dictionary/applicable-law)
 Background Intellectual Property
 (/dictionary/background-intellectual-property)
 Business Day (/dictionary/business-day)
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